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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION N |
|-----------------|-------------|----------------------|---------------------|----------------|
| 09/904,828 | 07/12/2001 | Lup San Leong | CHRT-99186.DIV | 7193 |

7590 10/19/2004

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EXAMINER

ELEY, TIMOTHY V

ART UNIT

PAPER NUMBER

3724

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

YW

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/904,828 | LEONG ET AL. |
| | Examiner | Art Unit |
| | Timothy V Eley | 3724 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 01 September 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 40-47 is/are pending in the application.
 - 4a) Of the above claim(s) 42 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 40,41 and 43-45 is/are rejected.
- 7) Claim(s) 46 and 47 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 40,41, and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushio et al(6,102,775) in view of either Tolles(6,454,630) or Aiyer(6,248,000).

a. Ushio et al discloses a polishing apparatus comprising; a polishing platen(112); a polishing pad(113) overlying the polishing platen, the polishing pad having a first polishing region(to the left of the window(225) in figure 2 when turned clockwise 90 degrees), a second polishing region(containing the window 225), and a third polishing region(to the right of the window(225) in figure 2 when turned clockwise 90 degrees), wherein the second polishing region lies between first polishing region and the third polishing region; a carrier(114); and an alignment detector(118, position detection system which properly aligns the carrier over the window), wherein the alignment detector is used to align the carrier to the second polishing region(and over the window) of the polishing pad. See figure 2, column 4, lines 18-36, column 8, lines 1-3, lines 11-15, and

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lines 35-43. Applicant's broad recitation of first, second, and third polishing regions does not define over any polishing pad, since any polishing pad can be divided into regions.

b. Ushio et al do not disclose an alignment knob on the polishing platen.

c. However, both Tolles and Aiyer disclose that it is well known in the art to attach a window(used as an alignment knob) to a platen in order to properly align a polishing pad to the platen. See figure 4, and column 6, lines 28-35 of Tolles. See figure 2, and column 5, lines 53-59 of Aiyer.

d. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Ushio et al device by attaching the window to the platen as an alignment knob as taught by either Tolles or Aiyer in order to properly align the polishing pad to the platen.

e. Regarding claim 41, the alignment detector comprises a laser. See column lines 43-45.

f. Regarding claim 43, since a polishing pad inherently has a porosity(containing holes), the first, second, and third polishing regions have first, second, and third hole densities respectively.

g. Regarding claim 44, the second hole density is greater than the first hole density and the second hole density, since the second hole density includes the window.

h. Regarding claim 45, the first, second, and third polishing

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regions each comprises a plurality of holes having a hole depth and a hole width, since inherently in a porous pad, at least two holes in each region will have a depth and width essentially the same.

Allowable Subject Matter

3. Claims 46 and 47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

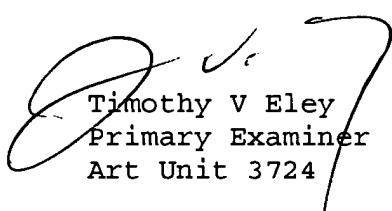
a. Cesna(6,142,857) discloses a platen having an alignment knob(see figures 4 and 5).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V Eley whose telephone number is 703-308-1824. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy V Eley
Primary Examiner
Art Unit 3724

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